# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/917,863 | 07/31/2001 | Charles W. Kellum | 13735 (CIP-12) | 1909 |

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| EXAMINER |
|---|
| DAVIS, ZACHARY A |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2137 | |

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | | Application No. | Applicant(s) |
|---|---|---|---|
| *Office Action Summary* | | 09/917,863 | KELLUM, CHARLES W. |
| | | Examiner | Art Unit |
| | | Zachary A Davis | 2137 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *31 July 2001*.

2a)☐ This action is **FINAL**.          2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-18* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)          4)☐ Interview Summary (PTO-413)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)              Paper No(s)/Mail Date. _____ .
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)          5)☐ Notice of Informal Patent Application (PTO-152)
    Paper No(s)/Mail Date _____ .          6)☐ Other: _____.

**DETAILED ACTION**

*Drawings*

1.      The drawings are objected to because they contain handwritten elements and labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

## Specification

2.      The use of the trademark WebTV® has been noted in this application. It should

be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the

proprietary nature of the marks should be respected and every effort made to prevent

their use in any manner which might adversely affect their validity as trademarks.

3.      The lengthy specification has not been checked to the extent necessary to

determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the

specification.

## Claim Objections

4.      Claims 1-10 and 12-17 are objected to because of the following informalities: The

above claims each end with a semicolon. All claims must end with a period.

Appropriate correction is required.

## Claim Rejections - 35 USC § 112

5.      The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.      Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

In reference to Claim 1, it is unclear whether the limitation "exchanged between a

protected host system and an external information source" in lines 2-3 of the claim

modifies the information-system/computer hardware device of line 1 or the information

of line 2.  Further, it is unclear what the subject of the limitation "preventing any

undesirable data" is; it appears that it is the information of line 3.  Additionally, the use of

the parenthetical limitation "including contaminated" renders the scope of the claim

indefinite, as it is unclear whether the limitations in parentheses are included in the

claimed invention.  Still further, the use of "thereto" in sections (b) and (e) of the claim is

somewhat unclear, although it appears to refer to the device of line 1 of the claim.

Similarly, the use of "itself" in section (c) of the claim is unclear, as the limitation could

refer to the peripheral devices, the means for controlling, or the information-

system/computer hardware device.  Finally, the limitation "between such external

information source" is generally unclear as to how a signal flow can be controlled

between only one source.  All of the above limitations render the claim indefinite.

Claim 2 recites the limitation "providing and receiving operational integrity and

performance information to other information system/computer hardware devices".  This

is generally unclear, specifically the phrase "receiving ... information to other ...

devices".  This renders the claim indefinite.

In reference to Claim 4, the limitation "relative to the host system" is generally vague and indefinite.

In reference to Claim 5, the limitation "in such manner as to enhance a video subsystem" is generally vague and unclear, as it is not clear how the video subsystem is actually enhanced. Similarly, Claim 6 recites the limitation "in such manner as to further enhance the video subsystem", which is also vague for a similar reason. This renders the claims indefinite.

In reference to Claim 7, the phrase "or like device" renders the claim indefinite because the claim includes elements not actually disclosed, thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

In reference to Claim 8, the limitation "in such manner as to enhance the function of the host system" is generally vague and unclear, as it is not clear how the function is actually enhanced. This renders the claim indefinite.

In reference to Claim 10, the use of the parenthetical limitation "based on the operational and performance information received from the other devices of the plurality" renders the scope of the claim indefinite, as it is unclear whether the limitations in parentheses are included in the claimed invention. Further, it is unclear whether the limitation "that information" in line 4 of the claim is intended to refer to the operational and performance information of claim 9 or to the processed and transceived information of claim 1. Similarly, it is unclear whether the limitation "the system" in line 5 of the claim is intended to refer to the protected host system or to the system as a whole.

Additionally, there is insufficient antecedent basis for the limitation "the application objectives" in the claims.

Claim 11 recites the limitation "The system of claim 7"; however, Claim 7 is directed to a device. Further, it is unclear whether the limitation "means for connecting" is intended to refer to the means for connecting computer system peripheral devices or to the means for connecting external information sources. Additionally, there is insufficient antecedent basis for the limitation "the means to transceive multiple video and multimedia signals, process these signals into a composite signal, and transmit the resulting composite signal" in the claims.

Claim 12 also recites the limitation "The system of claim 7", although Claim 7 is directed to a device. Further, the limitation "each of which is modified" in line 2 of the claim is somewhat unclear, although it does appear to refer to the single-board-computers that embody the devices.

In reference to Claim 13, the use of the parenthetical limitation "or subset of" renders the scope of the claim indefinite, as it is unclear whether the limitations in parentheses are included in the claimed invention. Further, there is insufficient antecedent basis for the limitation "the means for interconnecting individual devices" in the claims. Additionally, the phrase "or like module" renders the claim indefinite because the claim includes elements not actually disclosed, thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

In reference to Claim 14, the phrase "and like systems & devices" renders the claim indefinite because the claim includes elements not actually disclosed, thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

In reference to Claim 15, the use of the parenthetical limitations "independent of physical interconnection platforms" and "device-to-device" renders the scope of the claim indefinite, as it is unclear whether the limitations in parentheses are included in the claimed invention. Further, the phrase "such as" renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. Additionally, the phrase "or like interconnection platforms" renders the claim indefinite because the claim includes elements not actually disclosed, thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

Claim 16 recites the limitation "the virtual-interconnect function". There is insufficient antecedent basis for this limitation in the claims. Further, the limitation "automatically under application specific algorithmic type control processes" is generally vague. These limitations render the claim indefinite.

In reference to Claim 17, there is insufficient antecedent basis for the limitation "the one-way interconnect data paths" in the claims.

Claim 18 recites the limitation "The system of claim 1"; however, Claim 1 is directed to a device. Further, the use of the parenthetical limitation "for IP-telephony applications" renders the scope of the claim indefinite, as it is unclear whether the limitations in parentheses are included in the claimed invention. Additionally, there is insufficient antecedent basis for the limitation "the means to buffer incoming signal-

traffic, correct quality-of-service (QoS) type anomalies, and make the resulting signals

securely available" in the claims. Still further, it is unclear what is intended by the use of

parentheses in the limitation "a high percentage of (QoS) type anomalies".

Any claim not specifically referred to above is rejected due to its dependence on

a rejected base claim.

For purposes of interpreting the prior art, all exemplary claim language,

parenthetical limitations, and "whereby" clauses have been given no patentable weight.

### *Claim Rejections - 35 USC § 103*

7.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.      Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schnurer et al, US Patent 5842002, in view of Hill, US Patent 5598531.

In reference to Claim 1, Schnurer discloses a device including means for

processing and transceiving information signals, which processes an initial data set to

extract information from the initial data set and form a second data set (column 7, lines

46-52, and column 8, lines 46-49). Schnurer further discloses a means for connecting

to and controlling peripheral devices (see column 6, lines 28-40, where input streams

can come from data storage devices, for example), and means for connecting external

information sources to the device (column 6, lines 24-28). Schnurer also discloses that

the device can be a board level CPU (column 6, lines 9-13); however, Schnurer does

not explicitly disclose the device operating as an add-in card to a host system.

Hill discloses an apparatus for preventing damage caused by computer viruses

that can be implemented as an add-in card (column 4, lines 1-16; see also Figure 1,

Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify the device of Schnurer by implementing as an

add-in card, in order to prevent damage caused by computer viruses and other

malicious code (see Hill, column 2, lines 4-13).

In reference to Claim 2, Hill further discloses means for providing and receiving

performance information (see column 6, lines 25-27).

In reference to Claims 3-6, Schnurer further discloses means for securely

passing extracted information to a receiver (column 6, lines 41-62; column 8, lines 46-

54).

In reference to Claim 7, Schnurer further discloses a single board computer

(column 6, lines 9-13, where the device can be implemented as a board level CPU).

Additionally, Hill further discloses operating as an add-in card (column 4, lines 1-16).

In reference to Claim 8, Schnurer discloses a plurality of devices (Figures 3 and

4).

In reference to Claim 9, Hill further discloses means for providing and receiving

performance information (column 6, lines 25-27).

In reference to Claim 10, Hill further discloses means for controlling other devices (column 5, lines 36-59).

In reference to Clam 11, Schnurer further discloses means to transceive multiple multimedia signals (column 6, lines 24-28).

In reference to Claims 12-17, Schnurer further discloses a plurality of devices (Figures 3 and 4). Additionally, Schnurer further discloses a single board computer (column 6, lines 9-13, where the device can be implemented as a board level CPU) and Hill further discloses operating as an add-in card (column 4, lines 1-16).

In reference to Claim 18, Schnurer further discloses means for making signals securely available (column 6, lines 41-62; column 8, lines 46-54).


### Conclusion


9.      The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

    a.      Boone et al, US Patent 4352952, discloses a data security module that includes cryptographic software and is connected directly to the system bus.

    b.      Prugh et al, US Patent 4787027, discloses a system with an adapter board, which includes a secure processor, used to connect a computer to a plurality of peripherals.

c.      Ji et al, US Patent 5623600, discloses a proxy device interposed between

a client and a server, which eliminates viruses from data before the data is

transferred to the client system.

d.      Ji et al, US Patent 5889943, discloses a node that performs virus

detection and data analysis.

e.      Bull et al, US Patent 6065118, discloses a device that isolates

questionable program modules before they are passed to an end user computer

system.


Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Zachary A Davis whose telephone number is (571) 272-

3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate

Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

zad

**ANDREW CALDWELL**
**SUPERVISORY PATENT EXAMINER**